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BRONZE STATUETTE OF HERMARCHOS
GREEK, THIRD CENTURY, B.C.

A PAINTING BY PERUGINO

THE Museum has acquired by purchase a small painting representing the Resurrection, by the important Umbrian master Perugino. It is a part of a predella, the other panels of which, the Nativity, the Baptism, Christ and the Woman of Samaria, and *Noli Me Tangere*, are now in the possession of Mr. Martin Ryerson, of Chicago. These pictures were formerly in the Barker Collection, dispersed in 1874, from which the National Gallery acquired several important works. In 1892 these predelle were exhibited in the Old Masters' Exhibition at Burlington House, at which time they belonged to the Earl of Dudley. Of what altarpiece they formed a part is not known.

Our picture is painted on a panel 10 $\frac{3}{4}$ inches high by 18 inches wide. Christ, holding a banner, stands on an uncovered sarcophagus in the center, about which are four watchers, three asleep and one who starts away in fright. The banner and the drapery on the figure of Christ are red, and red occurs in the costume of each of the soldiers. There is a landscape of great beauty.

The poses in the Resurrection are similar to many others in Perugino's pictures. No great master was more economical in novelties than he. Figures and groups he repeats many times with little or no variation. His method and attitude of mind permitted this to an extent that occurs in but few instances in the history of the Renaissance. Each of his figures is isolated and unless the Child happens to sit on His mother's knee, one rarely touches another. His one expression is peace and calmness, no matter what the subject. The Saints in his Crucifixions are only pensive, and they seldom look at the Christ. Nor do the adoring angels pay any particular attention to the Madonna, and she is as impersonal as they, without a touch of humanity. In one of his pictures St. Bernard raises his hands in mild astonishment as the Virgin appears to him, but generally his people are dreamy and withdrawn from any actuality.

The figure of Christ in our picture occurs in many others of Perugino's works, in the

Ascension at Borgo San Sepolcro, for instance, and in all his Resurrections. In the small picture at Munich (No. 1038 catalogued as Raphael) the disposition of the figures is almost identical with ours, with one figure reversed. In the much-discussed Vatican Resurrection, it is as though the painter (Perugino according to Vasari and several of the most prominent living authorities, Lo Spagna according to Morelli) had taken our picture for a model and rearranged the figures for another shape.

As in all of Perugino's art, the expression of hushed serenity pervades our little painting. It is not difficult to analyze so distinct and pure a quality toward which the skill of the painter and his temperament have uniquely bent. The unconcern of the Christ and the supineness of the sleeping guards give the dominant note. In the whole picture the only movement to be found is in the pose of the soldier who has awakened and in the undulations of the banner and of the drapery of Christ.

The composition has the tranquillity that perfect balance brings, the units being arranged as for an architectural design; figure balances figure and hill balances hill as do windows and columns in a façade. The mood of the landscape is yet more placid than that of the figures. The scene takes place on a field rising into hillocks to right and left. There is a broad valley beyond, where a quiet river flows past a city to the sea. On either side are mountains whose successive ridges show sharp in the morning light which welling up from the horizon suffuses all the picture with the cool golden color of the summer dawn.

B. B.

STATUETTE OF HERMARCHOS

AMONG the Greek antiquities purchased by the Museum last year, out of the income of the Rogers Fund, is a bronze statuette which is a most remarkable example of Greek portraiture, and will easily rank as the finest Greek portrait upon a small scale known at the present time. The work of cleaning and repairing the figure has delayed its



THE RESURRECTION
BY PIETRO PERUGINO

exhibition until recently, but it may now be seen in Gallery 10 of the first floor.

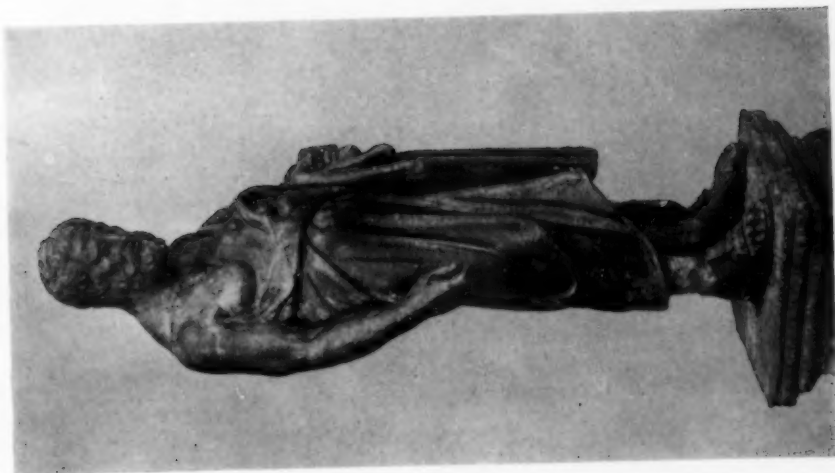
It represents an old, bearded man standing in a thoughtful attitude, the head bent and turned somewhat to one side. He wears a large mantle and sandals. The mantle has fallen from both shoulders to below the breast and is draped loosely about the figure. The right arm hangs easily at the side, slightly away from the body, while the left is bent sharply at the elbow to catch the folds of the drapery, one end of which is clutched in the hand. But perhaps what first impresses the spectator is the curious and interesting mixture of realism and idealism with which the subject has been treated. Not only are the features strikingly individual, but this quality is even more strongly marked in the modeling of the body. In exposing the upper part of it, the sculptor has evidently sought an opportunity of representing the fallen or shrunken muscles of old age, and he has not spared the well-rounded lines of the paunch. In these respects he has undoubtedly reproduced his subject precisely as he saw him, yet he has done this without the slightest tendency towards either exaggeration or caricature. It is old age without decrepitude; there is no diminution of intellectual force in the features, and the bearing of the figure is still full of dignity. This latter effect is produced not only by the pose, but also by the few simple, sweeping lines with which the folds of the mantle are rendered. In studying the drapery it is particularly interesting to note the skillful touch with which the curve of the abdomen is softened by the two folds that cross it. The general treatment of the figure is so strongly suggestive of sculpture upon a large scale that one who had not seen the statuette might easily suppose the photographs to be those of a statue of full size.

The identification of the subject is made possible by the close resemblance of the head to a small bronze bust from Herculaneum in the Museum of Naples (M.M.A. Casts 1047), which is inscribed with the name of the philosopher Hermarchos. For purposes of comparison two views of that bust are given herewith, side by side with corresponding views of the head of our

statuette, both reduced to the same size, and considering that they are the work of different artists the similarity could hardly be closer. Each has the same shape of skull, the same projections above the eyebrows, the long thin nose with high bridge and pointed tip, the flat ears with large, pendant lobes, and the same type of mouth, and in both the hair grows in the same manner across the forehead.

Of the personality of Hermarchos we have little information, the principal fact that is known about him being that he was a disciple of Epicurus, whom he succeeded as head of the Epicurean school on the death of its founder, B.C. 270. For a time he had considerable vogue, but his fame did not outlast antiquity, and none of his writings survive. His reputation among his contemporaries is attested by the fact that a number of portraits of him are still extant, mostly life-size busts, which are identified by their resemblance to the inscribed bust in Naples. The one date we have regarding his life, however, namely that just given, is of great importance in connection with our statuette, because it enables us to place the statuette in time near the statue it most resembles in style, that is, the famous portrait of Demosthenes in the Vatican (Casts, No. 890), which shows the same realistic treatment of the nude parts, combined with a dignified simplicity in the conception as a whole. The Demosthenes is generally believed to be the copy of a lost work in bronze which was made by the sculptor Polyektos about the year 280 B.C., and if we assume that our statuette represented Hermarchos at the time when he became the head of the Epicurean school, it would place the creation of the two works within a few years of each other, just as we should be led to do from the analogies between them.

The statuette was originally mounted upon a bronze Ionic column, of which only the capital and the core of the shaft are left. The latter, which consists of a bronze rod, $9\frac{3}{4}$ inches (248 mm.) long, and roughly rounded, is of interest for two reasons: first, because it gives us the approximate height of the column; and second, because it shows that the shaft itself must have been



BRONZE STATUETTE OF HERMARCHOS
GREEK, THIRD CENTURY, B.C.

of thin bronze, too light to carry the weight of the figure without being strengthened inside, a fact that probably accounts for its disappearance. An ebonized wooden shaft and base have been supplied in its place, giving as nearly as possible the original proportions, in order that the relation of the statuette to its pedestal might be preserved.

The height of the statuette alone is $10\frac{1}{4}$ inches (26 cm.), and the total height of the column, as restored, $12\frac{1}{2}$ inches (31.7 cm.). Its provenance and history could not be learned from its former owner. When it was acquired by the Museum both feet had been broken off from the figure, the right at the ankle, and the left at the



In passing, it may be observed that the use of columns as pedestals was common in the sixth and fifth centuries B. C. and again in Roman times, but examples of it in the period between are extremely rare, if indeed this one is not entirely unique.

The capital is intact, the casting being as thick as that of the figure. The three mouldings of its abacus, or upper part, are decorated respectively with the bead, the egg-and-dart, and the leaf-and-dart patterns, in relief, while the volutes are of simple type, in flat relief, with a flower between them. From the volutes four long bronze loops were suspended, two of which survive (see frontispiece); and if we may judge from the analogy of both earlier and later examples of similar column-pedestals, these were intended to carry garlands or fillets such as were hung on votive statues upon festal occasions.

point where the leg, with the fold of drapery attached to it, joins the mantle. These breaks were of ancient date, as the fractures were coated with the same patina with which the rest of the surface was covered. The feet also were detached from the base, but there could be no question that they belonged together, as the outline of each foot was clearly marked in the corrosion on the upper surface of the capital, and foot and outline fitted exactly. The patina of both figure and capital was of a crusty green, which fortunately had not corroded the surface to any appreciable extent, though it did obscure many of the finer details of the modeling. To bring these out again, the whole surface has been skilfully cleaned by M. André of Paris, without serious loss to the effect of the color.

E. R.



BARREL-SHAPED
FLOWER POT
BLUE AND WHITE
ABOUT 1750

JAR
BLUE AND WHITE
ABOUT 1750-1800

BARREL-SHAPED
FLOWER POT
BLUE AND WHITE
ABOUT 1750

MEXICAN MAJOLICA

MRS. ROBERT W. DE FOREST has presented to the Museum the most important part of her collection of Mexican Majolica, or tin-enamelled pottery, which was recently exhibited at the Museum of the Hispanic Society of America. When shown by that Society, the collection was described in an illustrated catalogue¹ written by Dr. Edwin AtLee Barber, Director of the Pennsylvania Museum and School of Industrial Art, which gives the first detailed account of this very interesting art, and forms a contribution of much value to the general history of ceramics.

Through the courtesy of Mr. Archer M. Huntington of the Hispanic Society, and of Dr. Barber, we are permitted to quote the following paragraphs from the Introductory Notes to this volume.

The glazing of earthenware with oxid of tin is now believed to be of Saracenic origin, having first been introduced into Egypt and Persia by the Arabs, who afterward carried the art into Morocco, whence

it was taken by the Moors into Spain. Workmen who went from Spain to Italy established the art in the latter country. It next appeared in France, at Nevers and other places, and soon after in Holland and Germany, gradually spreading to almost every section of the Continent and into England.

It was not known to ceramic writers until five or six years ago that tin-enamelled pottery had ever been produced in the Western Hemisphere. Isolated examples of majolica had been brought back by American tourists in Mexico from time to time, but these were supposed to be of Spanish workmanship and were known as Talavera ware. Writers have frequently described the elaborate, and often remarkable tile-work of the old churches, convents, and other religious foundations of that country, with scarcely a thought as to its origin. Recent investigations, however, have resulted in the discovery that true stanniferous faience was made in Mexico by Spanish potters and their native pupils as early as the sixteenth century, and continued to be produced on a considerable scale until the present time. The ancient seat of the manufacture was Puebla, and for more than three centuries that city enjoyed a monopoly of the majolica industry.

¹ Catalogue of Mexican Majolica Belonging to Mrs. Robert W. de Forest. Exhibited by the Hispanic Society of America, February 18 to March 19, 1911. By Edwin AtLee Barber. Ph.D. New York, 1911.

Puebla, or La Puebla de los Angeles (the Town of the Angels), was founded as a new city by the Spaniards in 1532. At the beginning of the seventeenth century its manufactures of cotton, wool, glassware, and pottery had been firmly established and were famed throughout New and Old Spain. Unglazed pottery had been produced by native workmen since the time of the Conquest, but glazing was not introduced until potters were brought from Spain. Consul-General A. M. Gottschalk, lately of Mexico City, in a recent report to the State Department at Washington states: "In the early days of Puebla's history, the Dominican friars, struck by the aptitude of their Aztec parishioners at making crude native pottery, and desirous also of obtaining tiles for the monastery and church which they were building, sent word to the Dominican establishment at Talavera de la Reina, in the province of Toledo, Spain, that they could make good use of five or six of the brotherhood who were acquainted with the Spanish process of pottery-making, if such could be sent to them. Accordingly, a number of Dominican friars, familiar with the clay-working processes in use at Talavera, were assigned to the Puebla house of their order, and under them were trained a generation of workmen who for the first few succeeding years produced some excellent pieces."

By 1653 the majolica industry of Puebla had grown to such proportions, without restriction of any sort, that it became advisable to organize an association for the mutual protection and assistance of the master potters. Accordingly, a Potters' Guild was established in this year, records of which have been found among the official archives of the city.

Several influences were at work in the seventeenth century in developing the art of majolica-making in Mexico. The earliest pieces which are known to us, produced before 1700, are embellished with strapwork and scrolled patterns in Moresque style. An excellent example of this variety, from the lavatory of the old convent of San Francisco at Atlixco, is a laver, or basin, some twenty inches in diameter, decorated in dark blue outlined with black,

now in the collection of the Pennsylvania Museum in Philadelphia. A similar specimen, owned in Mexico,¹ bears around the margin the explanatory inscription, "Soy para labar los sacryfycadores y no mas" ("I am for washing the sacrificers [hands] and for nothing else"). The most important work of this character, however, is probably the dado in the Chapel of the Rosary, belonging to the Church of Santo Domingo in Puebla (erected in 1690), which consists of tin-enamelled tiles painted with a strapwork design in blue and white, alternating with panels of other tiles embossed with patterns in Moorish taste.

The Spanish influence naturally impressed itself upon the glazed pottery of Mexico at an early date, through the craftsmen who were brought from Talavera and other places in Spain. From about 1600 to 1650 the Spanish style of painting, by which we mean the introduction of birds and animals and figures of saints among the decorative motives, largely preponderated. But about the middle of the seventeenth century the extensive importation of Chinese porcelains into Mexico, through the port of Acapulco, began to stimulate the artistic zeal of the Pueblan potters, who soon commenced to imitate the Oriental forms and paintings, and rapidly developed a pseudo-Chinese style, which continued until about the middle of the following century.

By the beginning of the nineteenth century the Chinese influence had entirely disappeared, and the later debased polychrome style of the Talavera majolica, which was developed in Spain in the latter part of the eighteenth century, was adopted in Mexico, which marked the beginning of the decadence of the art. New colors were introduced, and the products of the Hispano-Mexican period, which continued from about 1800 to 1860, became gaudy and flamboyant, and over-decoration vulgarized the ware.

A critical examination of the collections of Puebla pottery which are accessible to us enables us to divide these wares into

¹ This piece has been bought by Mrs. deForest since the article was written and will be added to the collection.



VASE
BLUE AND WHITE
ABOUT 1680-1700



WATER JAR
WITH POLYCHROME DECORATIONS



JAR WITH POLYCHROME DECORATION
ABOUT 1800

four classes, based on their distinctive forms and characteristic decorations, as follows:

- | | |
|--|---------------|
| 1. The Moresque style | } Blue |
| 2. The Spanish, or Talavera style | |
| 3. The Chinese style | } Monochrome. |
| 4. The Hispano-Mexican, or Pueblan style | |
| | } Polychrome. |

It is only within the past few years that the Mexicans themselves have commenced to recognize the true character of the tin-enamed pottery which is found in their country. Collectors in various parts of the republic have, as a result of recent discoveries, turned their attention to the gathering together and preservation of these remains of one of the earliest Hispano-Mexican arts. Of these local collections, that formed by Mr. Albert Pepper, an architect of the City of Mexico, has been recognized for many years as one of the most important. In the Pennsylvania Museum, Philadelphia, may be seen a representative group of these early wares. The interest in this subject, however, has not been confined to America, for we learn that European collectors have lately been attracted to this field of research, and groups of Mexican majolica have already

been sent to Germany, France, and England.

Mrs. Robert W. de Forest, who for many years has been engaged in collecting the folk pottery of all peoples, during a trip to Mexico in 1904 became interested in the pottery of Puebla, and at that time gathered together the nucleus of her present collection. Through the assistance of Mrs. Zelia Nuttall of Coyoacán, she has been able to add, from time to time, many rare and valuable examples, and her recent acquisition of the well-known collection of Mr. Albert Pepper has made her collection one of the most extensive and representative of its kind. It is particularly rich in polychrome pieces, dating from about 1800 to 1860.

The majolica of Mexico, crude and in-artistic as it frequently appears, possesses an element of manly vigor, in the boldness of its modeling and decorative treatment, which gives it an individuality of its own. The reflection of the virile art of Spain, combined with the refining influence of Oriental traditions, resulted in the development of a composite style of pottery, which at its best period, between 1650 and 1750, was quite distinct from the wares produced in any other country.



ALBARELLO
ABOUT 1700-1750

BASIN
ABOUT 1800

ALBARELLO
ABOUT 1750-1800



WINTER LIGHT
BY LEONARD OCHTMAN
GIFT OF MR. EMERSON MCMILLIN

RECENT ACCESSIONS AND NOTES

GALLERY OF DRAWINGS.—Gallery 25 has been devoted to the exhibition of drawings and water colors. The gallery was opened to the public on May 12th with an exhibition of about seventy works—a selection from the collections belonging to the Museum. These include examples of various schools and artists, chosen rather arbitrarily, Italian, Dutch, English, French, and some American works being shown. Particularly interesting are the modern drawings of the French school beginning with Ingres and coming down to our own day with Rodin and Matisse. There are also several drawings by Legros and near them are two by his brilliant pupil Augustus John and four nervous studies of the nude by Arthur B. Davies.

The English group includes Lady Lilith by Rossetti and the two drawings by Blake which were purchased several years ago,

three drawings for Punch by Charles Keene, etc.

There are four Rembrandts including the magnificent Man Leading a Camel and several excellent drawings by the seventeenth century Dutchmen in another part of the room. One wall is devoted to Italian drawings, a study by Correggio in the centre, a Guardi landscape of extreme delicacy and beauty, and three or four Venetian sketches of interest. B. B.

NEW DRAWINGS.—Twenty-five drawings purchased by the Museum during the winter are now on exhibition in the gallery devoted to drawings, recently opened. They include works by various old and modern artists, the most important of which is The Creation of Eve, attributed to Raphael. This drawing, which comes from the Revely Collection, a collection formed in the eighteenth century, was regarded

in the eighteenth and early nineteenth centuries as an important, authentic Raphael. As such it has been shown at various exhibitions. The attribution has been doubted by certain modern connoisseurs, who, however, agree on the fact that it is an important drawing of the period. Another work from the Revely Collection is the head of a man, also formerly attributed to Raphael, but now given to Timoteo della Vite. Other noteworthy works in the group are a sheet of spirited sketches of a Bull Fight by Francesco Guardi, a female Saint holding a chalice by Hans Baldung, a landscape with cattle and figures by Gainsborough, a tinted drawing of the Marquise de Sévigné by Nanteuil, a pencil drawing for a portrait, a lady holding a book by Romney, and several others. On the back of the sketch by Romney there is a diagram of the palette of a painter of that time (perhaps Romney's) which will be of extreme interest to art students.

There are in the group several modern drawings of particular excellence. The crayon drawing by Whistler, a sketch of two men pulling a boat up a beach, is a very good one, in which a complete expression is achieved with the greatest economy of work. There are also two drawings of architectural subjects of exquisite precision by Muirhead Bone and five drawings of New York life by Jerome Myers, purchased from the artist. Mr. Myers' paintings of the East Side have been for several years among the notable pictures in the current exhibitions. His drawings, however, are comparatively unknown. The five examples chosen by the Museum give a fair idea of this side of his sincere and sensitive art.

THE TAPESTRIES OF THE SACRAMENTS.—The early Burgundian tapestries picturing the Seven Sacraments, which were presented to the Museum in 1907 by Mr. J. Pierpont Morgan (see the BULLETIN of March, 1907, pp. 40-42), have, it has been discovered, a very interesting provenance. They came from Granada, and hung in the Chapel of Ferdinand and Isabella. It happened that one of the curators of the Museum, while in Madrid visiting the Señor Ricardo de

Madrazo, was shown a photograph of the interior of the studio of the painter, Mariano Fortuny, and in this picture he noticed that in a corner appeared the tapestries in question. Señor de Madrazo told their history as follows: These tapestries served originally as a screen for the main altar of the Capilla de los Reyes. In 1871 they were in bad repair and were discarded by the authorities of the chapel. News of this came shortly to Fortuny and de Madrazo, who happened to be sketching in the neighborhood; they at once arranged a purchase, and Fortuny secured them. This account Señor de Madrazo later referred to in a letter to the writer. . . . From this we translate:

"There is no question that the tapestries of the fifteenth century which are now in The Metropolitan Museum in New York belonged to my brother-in-law, Mariano Fortuny, and were bought in Granada in the Chapel of the Catholic Kings in 1871. They were taken to Paris in 1875, when all of the objects in Fortuny's studio were sold at auction."

Admitting, then, that the tapestries in question hung originally before the main altar in the Memorial Chapel of Ferdinand and Isabella, and knowing definitely that these objects date from the fifteenth century, there is certainly a possibility that they at one time belonged to the Spanish sovereigns to whose interest and patronage America is greatly indebted. B. D.

THE LIBRARY.—The additions to the Library during the month of April were one hundred and ninety-two volumes, as follows: by purchase, one hundred and eighty-two; by gift, nine.

The names of the donors are Miss Alice D. Abbott, Dr. J. Ackerman Coles, Professor Alfred Emerson, Mr. George A. Hearn, Mr. Hugo Helbing, Mr. F. Lair-Dubreuil, Messrs. F. Muller & Company, Mr. Edward Robinson, Mr. P. F. Schofield, and Mr. George Cameron Stone.

Mr. Samuel P. Avery has presented to the Library a valuable collection of upward of nine hundred photographs of artists, French, English, etc., many of which have autographs attached.

The number of readers was seven hundred and thirty-three; in addition to these, ninety-four persons consulted the collection of photographs.

Through the generosity of Mr. William L. Andrews, Honorary Librarian, a handsome clock has been placed in the Reading Room above the entrance door.

The circular dial is of Blanc P. marble, with hands and numerals of bronze, set in Euville limestone. It rests on carved scroll supports of the same material, designed to harmonize with the architectural features of the doorway.

SATURDAY EVENING OPENING.—The galleries of Decorative Arts in the new wing are now open to the public on Saturday evenings, following the installation of the electric light.

ART IN TRADES CLUB.—A meeting of the Art in Trades Club was held at the Museum on Saturday evening, May 20th. The Curator of Decorative Arts, Dr. Valentin, gave a talk to the members on the collections of the arts of decoration and conducted them through the galleries.

CHANGE OF ADDRESSES.—Members of the Museum desiring to have the BULLETIN sent to them during their absence from town will kindly notify the Assistant Secretary.

A SPECIAL JUNE BULLETIN.—A special issue accompanies this number of the BULLETIN. It is devoted to a description, written by Miss G. M. A. Richter, of the very rich antique glass collection belonging to the Museum, now assembled in Gallery

37 of the first floor and just opened to the public.

Such special issues as this, four of which have already been published, are intended to furnish a kind of temporary handbook on the subjects about which they treat.

These occasional issues have been The Library, 1905; The Printed Catalogue of The Heber R. Bishop Collection of Jade, 1906; The Wing of Decorative Arts, 1910; and The Murch Collection of Egyptian Antiquities, 1911.

ATTENDANCE.—The number of visitors at the Museum during the months of February, March, and April is shown in the following tables:

FEBRUARY	
1910	1911
16 Free days... 26,023	17 Free days... 40,338
4 Evenings... 914	4 Evenings... 1,078
4 Sundays... 22,169	4 Sundays... 35,488
8 Pay days... 3,120	7 Pay days... 4,753 ¹
52,226	81,657

¹ Including 1,300 visitors to Winslow Homer Reception.

MARCH	
1910	1911
19 Free days... 47,893	18 Free days... 32,414
5 Evenings... 4,795 ¹	4 Evenings... 993
4 Sundays... 36,876	4 Sundays... 25,614
8 Pay days... 5,332	9 Pay days... 4,191
94,896	63,212

¹ Including 3,105 visitors to Whistler Reception.

APRIL	
1910	1911
17 Free days... 40,957	17 Free days... 34,573
5 Evenings... 2,057	5 Evenings... 963
4 Sundays... 29,648	5 Sundays... 33,266
9 Pay days... 6,452	8 Pay days... 4,538
79,114	73,340

COMPLETE LIST OF ACCESSIONS

APRIL 20 TO MAY 20, 1911

CLASS	OBJECT	SOURCE
CERAMICS.....	Eighty-nine pieces of Mexican majolica. Hispano-Mexican, 1600 to 1860.....	Gift of Mrs. Robert W. de Forest.
	†Three bowls in one piece, Syrian, fourteenth century.....	Purchase.
DRAWINGS.....	†Six, American School; six, British School; four, French School; one, German School; eight, Italian School.....	Purchase.
FURNITURE AND WOODWORK.	†Inlaid cabinet, English, period of William and Mary.....	Purchase.
	†Twelve mangle boards, Dutch, eighteenth century.....	Purchase.
MEDALS, PLAQUES, ETC.....	†Bronze-silvered medallion, The Late Solomon Loeb, by Victor D. Brenner.....	Gift of the Sculptor.
MUSICAL INSTRUMENTS.....	*Lyre guitar, French, early nineteenth century.....	Gift of Mr. and Mrs. W. H. Herriman.
PAINTINGS.....	†The Resurrection, by Pietro Perugino.....	Purchase.
	†Winter Light, by Leonard Ochtman.	Gift of Mr. Emerson McMillin.
	*Judgment of Solomon, Dutch (?), artist unknown.....	Gift of The National Surety Co.
TEXTILES.....	†Six pieces of brocade, Italian, fifteenth and sixteenth centuries....	Purchase.
	†Embroidered cover, Persian, seventeenth century.....	Purchase.
	Lace mantilla, Spanish, nineteenth century.....	Gift of Mrs. Zelia Nuttall.

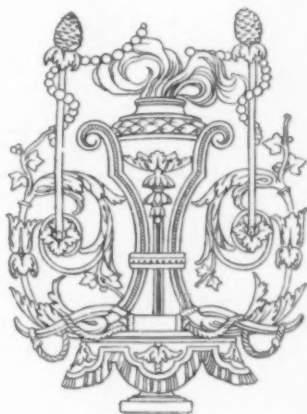
LIST OF LOANS

APRIL 20 TO MAY 20, 1911

CLASS	OBJECT	SOURCE
CERAMICS..... (Floor II, Wing E.)	Hispano-Moresque plate, Valencia, about 1450.....	Lent by Mr. George Blumenthal.
	† Recent Accessions Room (Floor I, Room 3).	
	* Not yet placed on Exhibition.	

BULLETIN OF THE METROPOLITAN MUSEUM OF ART

CLASS	OBJECT	SOURCE
PAINTINGS.....	*The Nativity, by Giovanni di Paolo, Siena, fifteenth century.....	Lent by Mr. Grenville Lindall Winthrop.
	*Virgin and Child with Angels, by the Master of the Ursula Legend, Bruges, about 1500.....	Lent by Mr. Grenville Lindall Winthrop.
	*Portrait of a Girl, by T. L. David...	Lent by Mr. Grenville Lindall Winthrop.
(Floor II, Room 13.)	The Meadows, by W. L. Lathrop...	Lent by Mr. Grenville Lindall Winthrop.
(Floor II, Room 24.)	Portrait of Lady Lethbridge, by Thomas Gainsborough, R.A.....	Anonymous Loan.
SCULPTURE.....	Marble bust, Saint John as a Boy, by Antonio Rossellino.....	Lent by Mr. George Blu- menthal.
(Floor I, Wing F.)		
TEXTILES.....	*Rug, Spanish, sixteenth century....	Lent by Mrs. Mary L. Pruyn.
(Floor II, Wing E.)	Silk carpet (so-called Polish rug), Persian, seventeenth century.....	Lent by Mr. C. F. Williams.
	* Not yet placed on Exhibition.	



THE BULLETIN OF THE METROPOLITAN MUSEUM OF ART

FIFTH AVENUE AND 82D STREET

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All communications should be addressed to the Editor, Henry W. Kent, Asst. Secretary, at the Museum.

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THE COLLECTIONS OF THE MUSEUM

The Circular of Information gives an Index to the collections which will be found useful by those desiring to find a special class of objects. It can be secured at the entrances.

EXPERT GUIDANCE

Members, visitors, and teachers desiring to see the collections of the Museum under expert guidance, may secure the services of the member of the staff detailed for this purpose on application to the Secretary. An appointment should preferably be made.

This service will be free to members and to teachers in the public schools, as well as to pupils under their guidance. To all others a charge of twenty-five cents per person will be made, with a minimum charge of one dollar an hour.

THE LIBRARY

The Library, entered from Gallery 14, First Floor, containing upward of 20,000 volumes, chiefly on Art and Archaeology, is open daily, except Sundays, and is accessible to students and others.

PUBLICATIONS

The publications of the Museum, now in print, number twenty-three. These are for sale at the entrances to the Museum, and at the head of the main staircase. For a list of them and their supply to Members, see special leaflet.

PHOTOGRAPHS ON SALE

Photographic copies of all objects belonging to the Museum, made by the Museum photographer, are on sale at the Fifth Avenue entrance. Orders by mail, including application for photographs of objects not kept in stock, may be addressed to the Assistant Secretary. Photographs by Pach Bros., The Detroit Publishing Co., The Elson Company, and Braun, Clément & Co., of Paris, are also on sale. See special leaflet.

RESTAURANT

A restaurant is located in the basement on the North side of the main building. Meals are served *à la carte* 10 A.M. to 5 P.M. and *table d'hôte* from 12 M. to 4 P.M.

THE METROPOLITAN
MUSEUM OF ART

THE ROOM OF
ANCIENT
GLASS



SUPPLEMENT TO THE BULLETIN OF
THE METROPOLITAN MUSEUM OF ART
JUNE, MCMXI



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THE ROOM OF
ANCIENT
GLASS



FRONTISPIECE: BLOWN GLASS VASES OF VARIOUS SHAPES



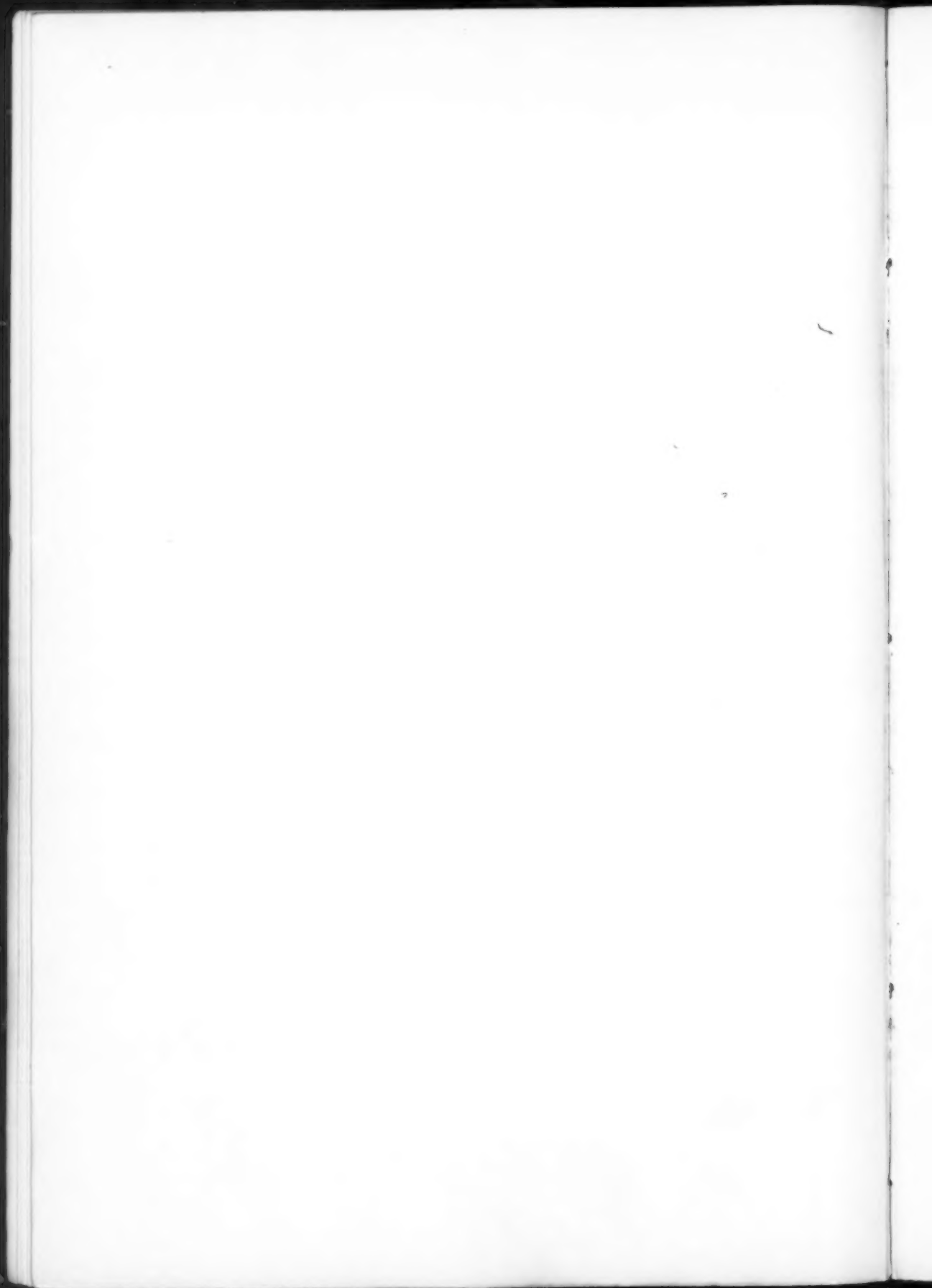
FIGURE 1. PLAQUE ORNAMENTED WITH RELIEFS. SACRIFICIAL PROCESSION

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FIGURE 2



THE ROOM OF ANCIENT GLASS

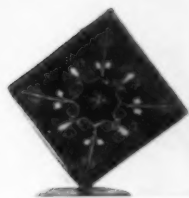


FIGURE 3.
MOSAIC PLAQUE

THE collection of ancient glass in the Metropolitan Museum now ranks as the richest collection in the world as well as one of the most important. The Museum has indeed had exceptional opportunities in that direction. The collection of antiquities from Cyprus acquired from General L. P. di Cesnola in 1872 contained over 1,700 pieces of ancient glass.¹ In 1881, Mr. Henry G. Marquand purchased and then presented to the Museum the famous Charvet Collection² consisting of about 350 pieces, carefully selected by M. Charvet during his lifetime, so as to constitute the finest private collection in France. In 1893 an important group of vases from Syria was purchased; and in 1910 Mr. Morgan lent to the Museum the well-known Gréau Collection³ of ancient glass, consisting of about 5,000 pieces, of which more than 1,000 are whole vases, the rest fragments. A portion of this collection was formerly exhibited in the South Kensington Museum, London.

The Moore Collection also contains many valuable pieces of ancient glass, but as this is a restricted collection, the glass could not be separated from the other objects.

It was felt that with such a richness of

material a special room for the exhibition of ancient glass was needed, and for this purpose Gallery 37, adjoining the Second Vase Room, has been fitted up. Even in that space it was found impossible to exhibit the whole of the collections; but as they contained many duplicates, it was easy to make an adequate selection, which was still entirely representative. The arrangement of the material in Gallery 37 is as follows: The Cesnola Collection, the special interest of which is that it was all found in Cyprus, has been kept together and placed in the North and one of the West wall cases (1-11). In the five floor cases are accommodated the most important pieces of the Charvet and Gréau Collections, as well as some of the Syrian vases, arranged systematically according to their various fabrics. The wall cases of the South, East, and West walls (12-21) contain the rest of the Charvet and Gréau Collections, also arranged according to fabrics. The two table cases have been reserved for the exhibition of smaller objects, such as beads, reliefs, mosaics, and more important fragments.

Ancient glass is a branch of ancient art which has hitherto received rather scant attention. The reason is probably that mythological scenes or inscriptions are comparatively rare on glass vases, and their study is therefore not so rich in archaeological interest as is that of other minor arts, such as painted vases or gems. The result is that the classification and dating of ancient glass have not been so thoroughly established as those of other branches of Greek and Roman art. Recently, however, Kisa in a three-volume book entitled *Das Glas im Altertume* (Leipzig, 1908) has published the first really scientific and comprehensive treatment of ancient glass.¹ It is a work

¹ A shorter account of ancient glass was published by Kisa in 1899 in his introduction to the volume entitled *Die antiken Gläser der Frau Maria vom Rath*.

¹ See *Atlas of the Cesnola Collection*, Vol. III.

² Published by W. Froehner: *La Verrerie Antique, Description de la Collection Charvet*, 1879. From this catalogue have been taken the provenances assigned to the vases of this collection.

³ Published in a monumental work by W. Froehner: *Collection Julien Gréau, Verrerie Antique appartenant à M. John Pierpont Morgan*, 1903. From this catalogue have been taken the provenances assigned to the vases of this collection.

which represents the fruits of the study of a lifetime and sums up our present knowledge of this subject. By making use of all available evidence Kisa has succeeded in establishing a satisfactory classification of the material, which though it still contains many gaps, owing chiefly to the deplorable lack of careful excavation records, supplies at least a working basis.

The following short account of the history of ancient glass and its various fabrics, based largely on the data supplied by Kisa in his book, may serve as a convenient guide to the collection in this Museum.

Egypt seems to have been not only the place where glass was invented, but the great centre of glass industry throughout antiquity. At least, it is in this country that a glassy substance first appears. It occurs at first not as glass proper, but as glaze, in which form it has been found at a very early period. Glazed beads, for instance, at least as early as the middle of the predynastic period (about 3600-3500 B.C.) have been found by Petrie and others at Nagada and Ballas and other sites. In the early dynasties glaze is commonly found on tiles, figurines, and beads,¹ and its use is continuous throughout the history of Egypt. In the XVIII dynasty (about 1500 B.C.) glass proper occurs for the first time and vases of the primitive variegated type are found from this period till the XXVI dynasty (about 600 B.C.). Moreover, factories of glass vases or traces of such have been discovered at various sites, such as Tel el Amarna (XVIII dynasty—about 1500 B.C.), the Ramesseum at Thebes (XIX dynasty—about 1300 B.C.), and Lisht² (XX-XXII dynasties—about 1200-900 B.C.), a clear proof that glass was manufactured in Egypt and not imported. Subsequently, vases of exactly the same technique are found in Greek lands and in Etruscan tombs of the sixth to the fourth centuries B.C., and after that in Cyprus and elsewhere in the Hellenistic and Roman

periods. These are most probably either of Egyptian manufacture and exported, or native imitations of the Egyptian ware.

The popular theory that the Phoenicians invented glass is based largely on Pliny's somewhat confused account given in his *Historia Naturalis*, XXXVI, 26, 65, where he tells the story of some Phoenician merchants who encamped on the shore and rested their cooking pots on blocks of natron, and afterwards found glass produced by the union of the alkali and the sand at a high temperature. This theory, however, does not seem to be supported by sufficient evidence, since neither glass factories nor deposits of glass earlier than the fifth century B.C. have been unearthed in Phoenicia.

PRIMITIVE VARIEGATED GLASS

Our collection of this primitive variegated glass is very representative; it is exhibited in Floor Case I and in the East Wall Case. These vases were not blown, but modeled by hand over a core; while the vase was still hot, threads of colored glass were applied on the surface and incorporated by rolling, the various patterns being produced by dragging the surface in different directions with a sharp instrument. Three varieties can be distinguished dating from three different periods:

(1) Early Egyptian of the XVIII to XXVI dynasties (about 1500-600 B.C.). These examples, especially those of the XVIII dynasty, are distinguished for the beauty of their coloring and the perfection of their technique (fig. 4).

(2) The sixth to the fourth centuries B.C., found in graves in Asia Minor, the Greek Islands, Greece, and Italy. The shapes are different and the colors, though brilliant, are not so bright and pure as in the earlier examples (see fig. 6).

(3) Hellenistic and Roman periods. These are much coarser in execution and are often supplied with handles of fantastic shapes (see fig. 5).

As we see from these vases, glass was put to practical use long before the invention of the blowing tube. But at best the method of building up vases by hand must have been slow and clumsy, and the result

¹ See the Abydos material from the Osiris temenos belonging to the I dynasty in Gallery I of the Egyptian section.

² For the Lisht material, which was found by the Metropolitan Museum expedition, see Gallery 6 of the Egyptian section.



FIGURE 4. EARLY EGYPTIAN GLASS, XVIII-XX DYNASTIES



FIGURE 5. HELLENISTIC AND ROMAN PERIODS



FIGURE 6. SIXTH TO FOURTH CENTURIES B.C.

is that the use of glass vessels during this early period was very limited, clay vases of every description supplying the needs of every day. The invention of the blowing-tube worked a revolution in that direction. With this easy and rapid means of manufacture, glass now began to usurp the place of clay and was more and more commonly employed for the various uses to which it is put at the present day. Where and when this great invention took place is still a moot question. For a long time it was thought that the process of blowing glass was known in Egypt as early as the XII dynasty, scenes such as the well-known relief of Beni Hasan being interpreted as representing men blowing glass. This is, however, not possible, as no blown glass of that period has been found, and the Beni Hasan relief and similar scenes have now been satisfactorily shown to be connected with metal works (L. Griffith, *Archæological Survey of Egypt, Beni Hasan, IV*). All that can be said at present is that the art of blowing glass appears to have been invented some time during the second or the first century B.C., probably somewhere in the Greek Orient. Alexandria was at first the chief center of the industry, but with the spread of the Roman Empire places for the manufacture of glass were established not only throughout the East and the West, but also in the North, in France, Germany, and England, where several ancient glass factories have been discovered and where, to judge from the great quantities of glass found, the industry was particularly flourishing.

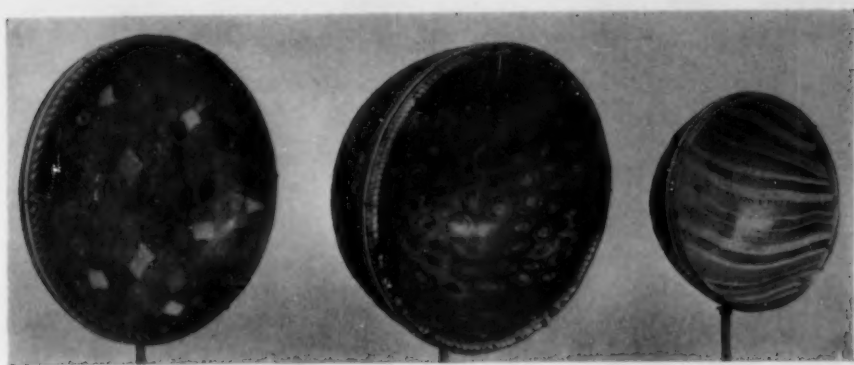
PLAIN BLOWN GLASS

Most of this blown glass is quite plain, without decoration. It occurs both colorless and colored, the favorite colors employed being different shades of blue, red, and green, amber, black, and opaque white (see Wall Case 12). The commonest method of producing these colors was the addition of iron or copper oxides. The shapes of the vases vary almost indefinitely, the most prevalent forms being jugs and bottles of various proportions, bowls, tumblers, and plates (*Frontispiece*). The custom of depositing these vases in graves as offerings

to the dead accounts for their preservation in such numbers. It is often possible to date such graves through the finding of coins, which were added to the other offerings in conformity with the custom of supplying the dead with money to pay Charon, the ferryman of the lower world.

Besides the obvious uses of glass vessels, those of the toilet and the table, for which the great majority must have served, there is one which requires special mention. This is the employment of glass urns (see center vase on *frontispiece*) to contain the ashes of the dead. This custom prevailed from the first to the third century A.D. in Gaul, Brittany, Germany, Italy, Spain, and North Africa; in Greece, Egypt, and the Orient it is unknown. The urns were of various forms and were generally made of thick, greenish glass. After the third century burial began to take the place of cremation, and the glass urns gradually disappear.

The bulk of the Cesnola Collection belongs to the plain blown variety of glass and has accordingly been classified according to the shapes of the vases. The chief attraction of this glass for us nowadays is the fact that in many cases it is iridescent and thus shows the most wonderful combination of colors, which become quite dazzling when touched by the sunlight. This iridescence was of course unintentional on the part of the makers, and is produced by the partial disintegration of the glass, caused by its exposure to damp and oxidation in the graves. Through this disintegration the internal structure of the glass is exposed, which thus appears as a scaly formation. The decomposition of light as it passes through the various films and the partial reflection from the back layers produce that intermingling of brilliant colors, called iridescence, which has changed a common piece of glass into an object of great artistic beauty. It should be remembered that this iridescence, though valued so highly by collectors, signifies a danger to the conservation of the glass which finally leads to its destruction. The process is delayed, but not totally arrested, by the removal of the vases from the damp graves into the light, so that we



A

B

C

FIGURE 7. MILLEFIORI OR MOSAIC BOWLS



FIGURE 8. ONYX GLASS



FIGURE 9. CUPS PAINTED WITH ENAMEL COLORS

have the satisfaction of knowing that by placing the glass in our Museum cases we are doing the best thing for it. Modern iridescent glass is produced artificially, generally by spraying some acid on the surface. The fact that ancient iridescence depends solely on the effects of light is shown by wetting the surface of the vessel, when the iridescence will completely disappear until the moisture dries again.

Besides the plain blown glass, the ancients used glass decorated in various ways. The chief varieties are mosaic glass, glass blown in moulds, vases with threads of glass applied plastically, cut glass, and painted glass. These several varieties are all represented in our collection and have been grouped in the floor cases and the South wall cases.

MOSAIC GLASS

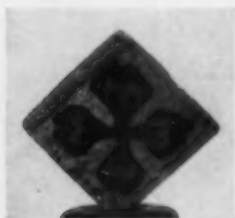


FIGURE 10.
MOSAIC PLAQUE

The invention of mosaic glass is, like that of the primitive variegated type, due to Egypt. Here this art appears already fully developed in the Ptolemaic period. In the Egyptian section (Gallery 9) will be found a number of examples which show this technique in a high state of perfection. The classical collection also contains a number of such plaques (see Table Case A) dating probably from the early Imperial period. Their technique is as follows: Pieces of glass of different colors were drawn out into thin threads which were placed together according to a given pattern, fused so as to form a compact rod, and then drawn out still farther if the pattern was to be reduced in size. By cutting up this rod into transverse sections, a series of small plaques was obtained, each of which reproduced the same pattern. These were

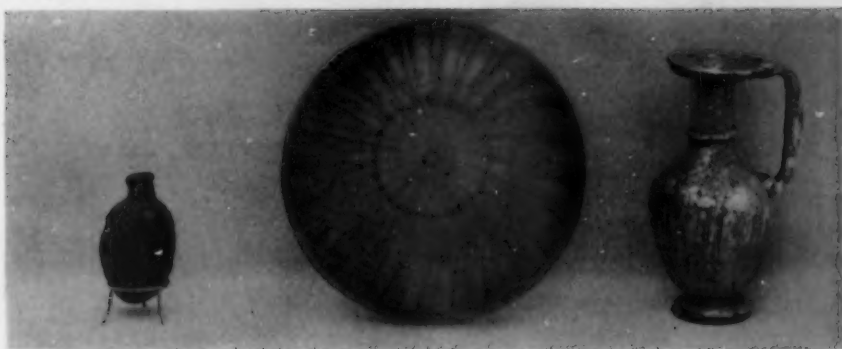
backed with plates of glass and could then be used for inlaying (see figs. 3 and 10). But this technique was not confined merely to small plaques; it was used for the production of the so-called Millefiori or Mosaic vases, which are among the finest products of the ancient glass industry. In these, various sections, produced in a manner similar to that just described, were placed together and pressed into a mould. They were there joined to each other, either merely by the application of heat, which fused them at the edges, or by blowing a bubble of clear glass on the inside of the vase. A variety in the patterns was obtained both by dipping the rods into liquid glass, thus obtaining a coating of a different color, and by cutting up the rods obliquely and lengthwise instead of transversely. In sections cut lengthwise the various threads which make up the glass rod appear as long bands, and vases made up from these are called *banded glass* (fig. 7 c). In these some of the rods were twisted spirally and their sections thus show an intertwined pattern. Another pattern was obtained by "flashing" a plate of glass, that is, dipping it one or more times into liquid glass, and then rolling it spirally. Here the sections appear as spirals, which could be further expanded by blowing. The chief charm of these mosaic vases, which consist chiefly of bowls, is the fact that the pattern goes right through, so that when held against the light the beauty of the colors and the effective contrast between the transparent and opaque pieces of glass are seen to greatest advantage. The most flourishing period of these vases appears to have been the beginning of the first century A.D., and, to judge from the places where they have been found, they appear to have been manufactured chiefly in the Orient and in Italy. It is possible that these vases are to be identified with the *Murrina* or *Murra* mentioned in such enthusiastic terms by ancient authors. The Venetians of the Renaissance appear to have greatly admired these mosaic bowls and imitated them extensively. These examples can generally be distinguished easily from the ancient ones by their cruder coloring. The Venetians invented the name Mille-



A

B

C



D

E

F



G

FIGURE 11. MOULDED GLASS

fiori (a thousand flowers), the varied pattern resembling a bunch of flowers.

ONYX GLASS

In the class of mosaic vases belong also the so-called Onyx vases, which have the appearance of veined marble (fig. 8). They are produced by melting glass threads of different colors and thickness to form a ball and allowing them to flow into each other while the vessel was blown, the pattern coming out according to the will and skill of the blower. Like the Millefiori bowls, they belong chiefly to the first century A.D. Examples of Millefiori and Onyx vases have been assembled in Floor Case II. The two Millefiori bowls of the Charvet-Marquand Collection (fig. 7 A, B) are among the finest specimens in existence.

VASES PAINTED WITH ENAMEL COLORS

In the same case are also exhibited a number of vases painted with enamel colors. In these the insertion of opaque threads into the actual substance of the vessel, as practised in the primitive variegated glass (see Floor Case I), was imitated by the application of the pattern on the surface of the vessel by means of enamel colors, laid on with the brush and fixed by heat. They consist chiefly of small cups and bottles (fig. 9); but a noteworthy example is the beautiful urn, purchased in 1910, which has been placed in the center of the case (fig. 19). These vases are chiefly found on the Rhine, especially in Cologne, and belong to the third and fourth centuries A.D. They were, like the Millefiori bowls, imitated by the Venetians.

PAINTED AND GILT GLASS

Besides enamel colors for decorative bands, we find mineral colors employed for painting various scenes on glass. As these

colors could not be fixed by heat, they have in a great many cases disappeared. The designs for these paintings were lightly engraved before the application of the colors. The earliest examples of such painted glass come from Egypt, but here the contours are not engraved. The classical examples mostly belong to the third and fourth centuries A.D. There are no specimens in our collection.

Of great importance is the gilt glass, which consists mostly of round disks which formed the bases of bowls, popularly known by their Italian name "*vetri a fondi d'oro*." The great majority of them have been found in the Christian catacombs, inserted in the walls, and belong to the third to the fifth centuries A.D. The process appears to have been as follows: While the glass was still hot it was covered with gold leaf. The design was then engraved on it with a sharp instrument, and the superfluous gold leaf removed from the background.

The vessel was then dipped into liquid transparent glass, so that the gold design appears embedded between two layers of glass. The Museum has just acquired a fine example, which will be illustrated and described in detail in a subsequent number of the BULLETIN.

MOULDED GLASS

The practice of blowing glass in moulds was prevalent from the invention of the blowing-tube to the fifth century A.D. The process was as follows: The moulds were made from a model, cut into halves, and then joined again. When the glass was blown into the mould this could easily be removed and used again, so that the process could be repeated indefinitely. The neck, lip, foot, and handle were added by hand. Moulded vases are either shaped in imitation of human heads, animals, and various fruits (fig. 11 B, D, G), or are deco-



FIGURE 12. BARREL
JUG



FIGURE 13. BOTTLES DECORATED WITH VARIOUS EMBLEMS AND IMPLEMENTS



FIGURE 14. SIDONIAN CUP, SIGNED
BY THE MAKER ENNION



FIGURE 15. SIDONIAN CUP, SIGNED
BY THE MAKER MEGAS

rated with figures and ornaments in relief. Among the latter special mention must be made of the following classes:

(1) Sidonian vases, consisting chiefly of small angular bottles decorated with various emblems and implements (see fig. 13), cups, and jugs, many of which bear the inscription of the maker. The name which occurs most frequently is Ennion (figs. 14, 16, 25); others are Artas, Neikon, Eirenaïos, and Megalos (fig. 15). That these artists took great pride in their work is shown by inscriptions such as *μνησθή ὁ ἀγοράζων* (let the buyer remember), added after the signature, which formula we may take to be the ancient equivalent for our modern "beware of imitations." From the fact that the makers sometimes expressly call themselves Sidonians, it appears that these vases were made in Sidon, though they were afterwards also imitated in Italy. They are found from the first century B.C. to the first century A.D.

(2) Cylindrical cups with inscriptions relating to games. The most frequent is *λάβε τὴν νίκην*, take the victory (fig. 18). These cups belong to the same period as the Sidonian vases, and also originated in the Greek Orient.

(3) Cups ornamented with scenes from the circus and the arena. The shapes are influenced by the Roman sigillata ware. These were made in the North—in Gaul or England—during the first half of the second century A.D. The example in our collection (fig. 17) comes from Montagnole,

near Chambéry, France, and represents gladiatorial combats. The names of the combatants are inscribed.

(4) Rectangular flasks, commonly known as "Mercury" flasks (see fig. 21). They are often supplied with factory marks on the bottom, among which the most frequent are Mercury, Victoria, various animals, geometrical figures, and inscriptions. Such flasks have been found in tombs of the second to fourth centuries A.D.

(5) Barrel jugs. These jugs (see fig. 12) were produced chiefly in Gaul from the second to the fourth century A.D. They generally bear a factory mark, such as the name of the maker, on the bottom. The name Frontinus occurs the most frequently, so that we may suppose him to have been the originator of this class of vases.

(6) Ribbed vases (see fig. 11 E, F). Jugs, bottles, and bowls of various forms were produced with ribbed decoration from the first century A.D. In Gaul and Germany they were especially pop-

ular during the third century A.D.

(7) Cylindrical and prismatic jugs (see fig. 11 A, C). These vases are generally made of heavy, greenish glass and often bear factory marks on the bottom. They occur from the first century B.C. to the third century A.D.

(8) Cylindrical flasks and round bottles, with handles roughly shaped in imitation of dolphins (see fig. 20). The handles were used for the insertion of little bronze chains, like those still preserved on some of



FIGURE 16. SIDONIAN JUG, SIGNED BY THE MAKER ENNION



FIGURE 19. LARGE VASE DECORATED WITH ENAMEL COLORS
AND RELIEFS



FIGURE 17. GALLIC CUP ORNAMENTED
WITH GLADIATORIAL COMBATS



FIGURE 18. INSCRIBED CUP

our examples. These vases occur from the first century A.D., the cylindrical flasks lasting until the third, and the round bottles until the fourth century A.D.

(9) Round and angular jugs with impressed reliefs consisting generally of Jew-

hand. The vessel was grooved by holding a wooden instrument against the glass bubble while it was being blown (see fig. 22), or it was pinched with a pair of tongs and thus supplied with a series of spikes (see fig. 23).



FIGURE 20. VASE
WITH DOLPHIN
HANDLES



FIGURE 21. "MERCURY"
FLASK



FIGURE 22. GROOVED
VASE



FIGURE 23. SPIKED VASE

ish emblems, such as the seven-branched candlestick, the temple-door, and the palm. These are found in Palestine and are apparently products of Jewish manufacture of the fourth century A.D.

Of these nine varieties examples belonging to the first four will be found in Floor Case III; the rest have been placed in the south wall cases nearest this floor case (17 and 18).

GROOVED AND SPIKED VASES

In addition to vases fashioned into various shapes by means of moulds, we find some which have been thus ornamented by

VASES WITH THREADS OF GLASS APPLIED PLASTICALLY

The practice of drawing out glass into thin threads and using them for the decoration of vases was, as we have seen, already practised by the Egyptians; but here the threads were completely embodied in the substance of the vases, so as to give the appearance of inlay work. In the early Imperial period (first century A.D.), the use of such threads for plastic decoration was first employed. In the beginning we may suppose that it was applied only around the neck, in imitation of the string used for fastening

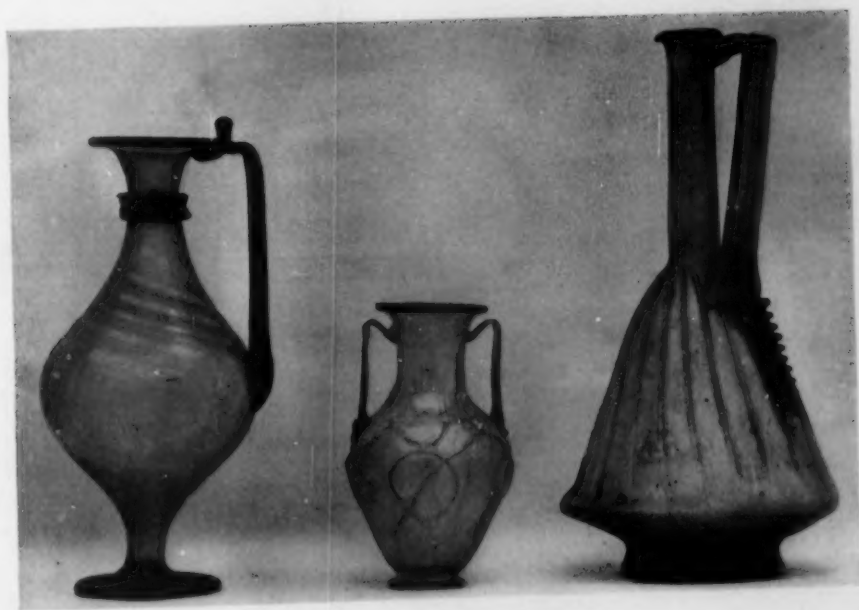


FIGURE 24. VASES WITH THREADS OF GLASS APPLIED PLASTICALLY

the stoppers of vessels; but its decorative quality was quickly realized and it was soon used to cover the whole body of the vase. Once introduced, its popularity continued throughout the period of the ancient glass industry. The process consisted of attaching little balls of glass to the vase while still hot and then drawing them out on its surface to form various patterns. Of these the commonest are horizontal, vertical, and spiral bands, zigzag and wavy lines, and network (see fig. 24). Variety was sometimes given to the pattern by pressing the threads of glass flat or indenting them in various ways; the glass threads are generally of a different color from the vase itself so that they detach themselves effectively from the ground.

VASES WITH SERPENT-LIKE BANDS

Under this class of decoration two fabrics should be specially noted—the vases with serpent-like bands and the Syrian lekythoi. The former occur in the Rhine country and in Gaul. They are a small class of vases, distinguished for their graceful shapes and for the technical perfection of their decoration. They were produced from the first to the fourth century A.D., but the best examples belong to the second century A.D. Two excellent specimens belong to the Charvet-Marquand Collection and are exhibited in Floor Case IV (vignette on cover and fig. 28).

SYRIAN LEKYTHOI

The Syrian lekythoi consist of multiple vases elaborately ornamented with fantastic handles and decoration of threads of glass. They are found mostly in Syrian tombs of the fourth century A.D., but they also occur in Gaul and in the Rhine country. A representative collection of these is exhibited in Floor Case V (fig. 26).



FIGURE 25. SIDONIAN VASE, SIGNED BY THE MAKER ENNION

VASES WITH RELIEFS

In connection with the plastic application of threads of glass an allied form of decoration must be mentioned—that of dropping liquid glass balls on the surface of the vessel and either leaving them plain or working them in relief. When left plain, they appear as a number of patches which either protrude or are pressed in (see fig. 27); these are generally of a different color from the vessel itself, the idea having probably originated from the costly "*potioria gemmata*," the gold and silver cups studded with cameos and gems, which were a favorite form of luxury with the wealthy Romans. A good example of the

complicated process of working such patches into reliefs, while the mass was still soft enough to receive impressions, is a vase belonging to the Gréau Collection, which shows elaborate garlands thus worked (in Wall Case 17). Sometimes the reliefs were worked separately and then applied on the heated vessel. Examples of reliefs made for this purpose will be found in Table

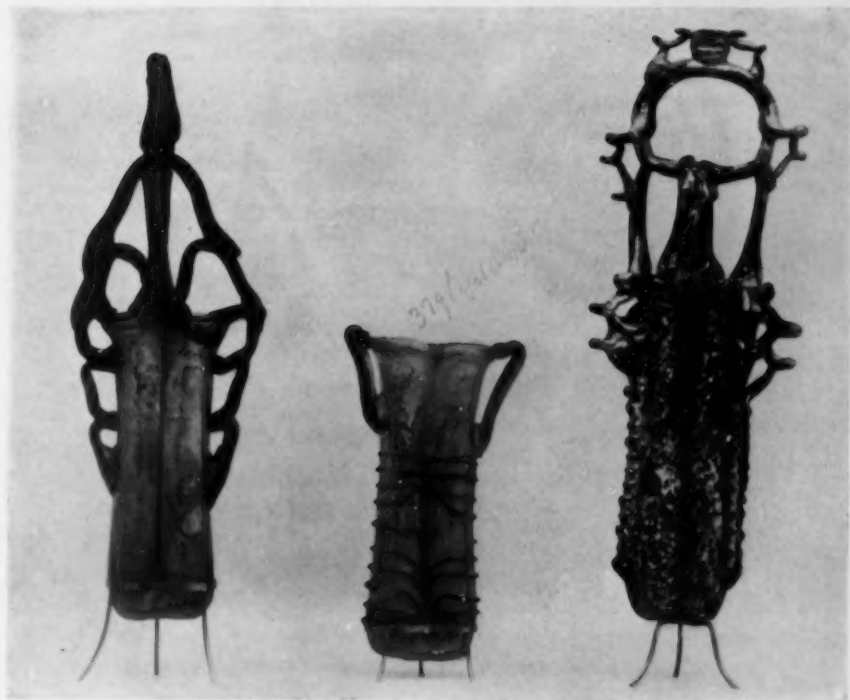


FIGURE 26. SYRIAN LEKYTHOI



FIGURE 27. VASE ORNAMENTED WITH
COLORED PATCHES OF GLASS

THE METROPOLITAN MUSEUM OF ART

Case A (fig. 30), while the vase illustrated in fig. 19 shows such reliefs in place.

Another method of decorating the surface of a glass vessel with reliefs was in imitation of cameos. This was done by welding two glass plates of different colors together and cutting one plastically. A vessel of dark transparent glass was dipped

our collection the technique is represented by only a few fragments (see figs. 1, 2), which have been placed in Table Case A.

CUT GLASS

All the methods of ornamentation hitherto described are based upon the great plia-



FIGURE 28. JUG WITH SERPENT-LIKE BANDS

into liquid glass, generally of opaque white color, so that this formed a coating over the entire surface. When this cooled and hardened, reliefs could be cut in, the dark background being laid bare between the figures and shimmering through the thinner layers. Owing to the brittle nature of glass, this process was attended with much difficulty and vases of this class are rare. They were produced during the first century A.D., but seem to have died out at the end of that century, the art being henceforth retained only for glass cameos. The best-known example is the beautiful Portland Vase in the British Museum. Several fine vases from Pompeii are in the Naples Museum. In

bility of glass at a high temperature. On the other hand, its hardness at a normal temperature lends itself to another form of decoration—that of cutting. This was applied by means of a metal or stone instrument with points of various forms, which was worked on the surface of the glass by means of a wheel or free hand. The simplest decoration consists of horizontal bands and was in use from the first to the fifth century A.D. In the third, fourth, and fifth centuries more elaborate ornamentations were introduced, consisting either of decorative designs or figured scenes (see fig. 29); inscriptions also occur. Among the figured representations the most fre-

quent are mythological and Christian subjects; landscapes; hunting, dancing, and circus scenes. The execution of these is sometimes very coarse; especially so are the dancing groups, which are probably of Rhenish manufacture. Subjects of interest illustrated by the examples in our collection are the Hunt of Adonis, the Contest of Herakles and the Lerneian Hydra, Moses striking Water from the Rock, and the Three Men in the Fiery Furnace. These and other examples of cut glass are placed in Floor Case V and Table Case B.

BEADS

No account of ancient glass would be complete without some mention of glass beads, which have been a popular product from early Egyptian times to our modern days. In shape, color, ornamentation, and technique they are of almost infinite variety, but the following rough system of chronology can be observed. Glazed beads occur, as has already been mentioned, from the pre-dynastic period. In the eighteenth dynasty (about 1500 B.C.) plain glass beads first make their appearance. From 1000-300 B.C. and even later a favor-

ite variety is the so-called "eyed" beads which are found in various parts of Europe, as well as in Egypt. Plain or concentric circles of yellow, blue, or white glass are inserted in the beads by a method similar to that of the glass threads in the primitive vases, while occasionally drops of colored glass are left to protrude from the surface. Instead of in concentric circles the pattern is sometimes arranged in spiral or zigzag lines. In the Roman Imperial period many new types of beads were introduced, such as the mosaic, the marbled, the Millefiori, and that with threads of glass applied plastically, to correspond with the various new methods employed in the manufacture of glass vases. Plain and ribbed beads occur continuously both in pre-Roman and Roman times. But it should be noticed that during the pre-Roman period the beads were formed by twisting a glass thread round a wire, the place where the thread is nipped off being often clearly visible. In Roman times, on the other hand, the beads are all cut and can thus be easily distinguished from the earlier varieties.

G. M. A. RICHTER.



FIGURE 29. CUT GLASS

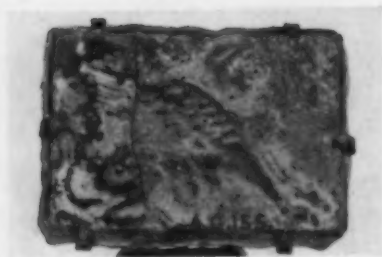


FIGURE 30. GLASS RELIEF